FREQUENCY and PERIOD

Range	.001 Hz to 1.3 GHz
Resolution	11 digits in 1 second
Error	<100 ps/gatetime+timebase

PHASE

Range	+/-180 degrees
Resolution	(25ps x Freq x 360 + .001
Error	<(1ns x Freq x 360 + .001)

TIME INTERVAL ARMING

+TIME	Stop is armed by Start
+TIME_EXT	Ext arms Start
+TIME_EXT_HOFF	Leading EXT edge arms Start, trailing EXT edge arms Stop
+-TIME	Armed by Start/Stop pair
+-TIME_CMPL	Armed by Stop/Start pair
+-TIME_EXT	Armed by EXT input edge

TIME, WIDTH, RISE/FALL TIMES

Range	+/-1000 s
LSD	4 ps (single-shot)
Resolution	25 ps, rms (typ)
Error (Abs)	< 1 ns+timebase
(Rel)	<100 ps+timebase

SAMPLE SIZE

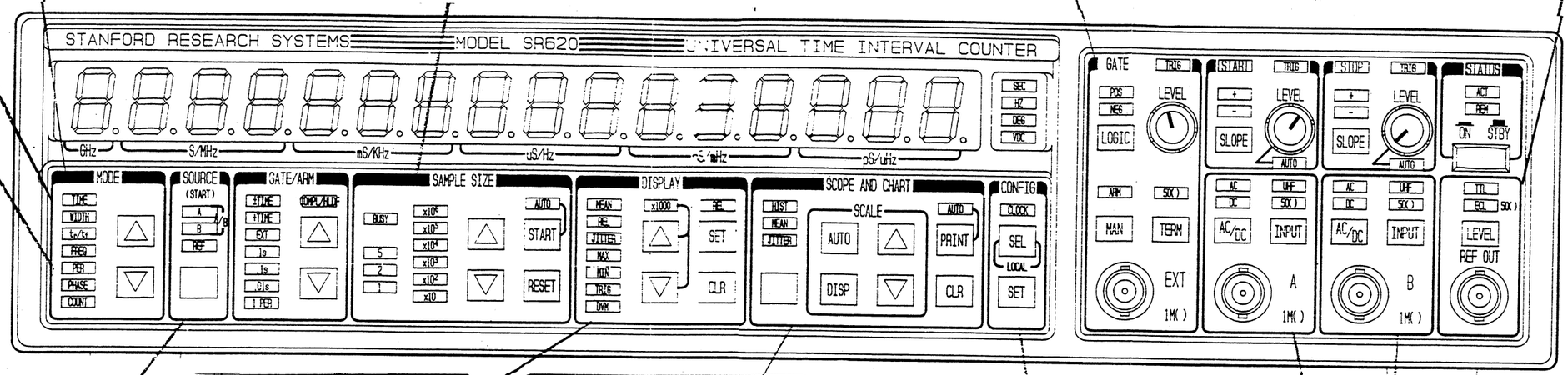
Select 1 to 10^6 measurements for statistical analysis (Mean,Min,Max,Jitter).
Push Start to begin one group of measurements or push and hold for continuous measurements.
Reset will restart a group of measurements.

EXT INPUT

This input is used for external arming and gating, and as a trigger for delayed arming or scanning gates. Thresholds from +-5.00 V with 10 mV resolution. Positive or negative logic, 1 MOhm or 50 Ohm input. Inputs may range from 3 ns to 1000 s.

REF OUT

A 1 KHz squarewave with ECL or TTL levels. Can drive 50 Ohm loads with a 2 ns transition time. Synchronous with the timebase for very low jitter and a 50% duty cycle. This output may be used to trigger devices under test.



SOURCE (START) SELECTION

A	A is the source
B	B is the source
A&B	Ratio of A/B
REF	REF OUT is source

DISPLAY

MEAN	Mean value
REL	Offset for RELative values
JITTER	Std dev or Allan variance
MAX	Largest value in a sample
MIN	Smallest value in a sample
TRIG	Levels for EXT, A and B
DVM	Volts at rear panel DVM's
x1000	Femtoseconds/nanoHertz
SET/CLR	Set or clear the REL offset

SCOPE and CHART

HIST	Display histogram of values
MEAN	Display strip chart of means
JITTER	Display strip chart of Jitters
SCALE	AUTO to scale displays
	DISP to set display scales
	CURSOR to read values
PRINT	Print/plot scope display
CLR	Clear scope display

CONFIG Four menus for configuration

The "Control" menu is used to set GPIB address, RS232 baud rate, and view RS232/GPIB commands. A "CAL" menu allows automatic calibration and adjustment of the internal timebase. Other menus for hard copy support and scanning.

A & B INPUTS

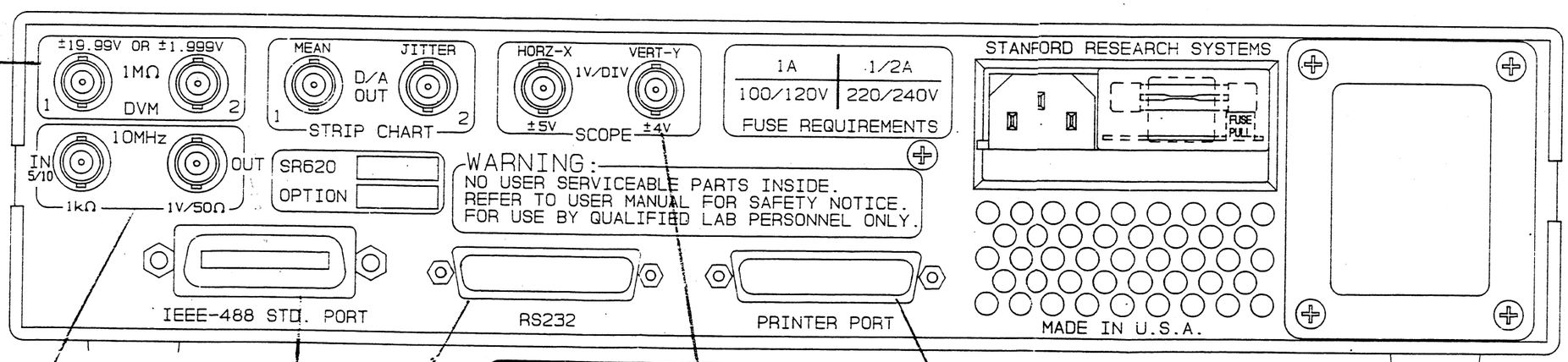
Similar to high speed scope inputs, they may be ac/dc coupled, 1 MOhm or 50 Ohms, and levels may be set and displayed to 10 mV resolution. AUTOLEVEL circuits can select the best level. The slope may be specified for triggering, and prescalers are available on both inputs for frequencies to 1.3 GHz.

DVM INPUTS

May be read by computer via RS232 or GPIB or viewed on front panel. One megaohm isolated differential inputs with either +-2 or +-20 volts full-scale.

STRIP CHART / DAC OUTPUTS

Analog voltages proportional to the mean value and jitter to drive strip chart recorders. The scale factors (linear or log) may be set on the front panel. The outputs may also serve as general purpose DAC outputs which may be set or scanned over a +-10 Vdc range with 5 mV resolution. A typical application would be the characterization of a VCO's linearity.



TIMEBASE I/O

Outputs a 10 MHz sinewave from the timebase. The timebase may be calibrated via the front panel calibration menu. An external timebase of 5 or 10 MHz may be applied.

GPIB(IEEE-488)/RS232

GPIB and RS232 ports for computer control and data acquisition. All functions may be controlled via the interfaces (even input levels), and all results may be read back to the computer (ASCII and binary-dump).

SCOPE OUTPUTS

Drive any XY scope for displays of histograms, and strip charts of mean values and jitters. 25 pixels per division on an 8x10 division scope screen. The displays include text for scale factors and cursor read-outs of individual values. The scope refresh is synchronized to the line frequency for a sharp and stable display.

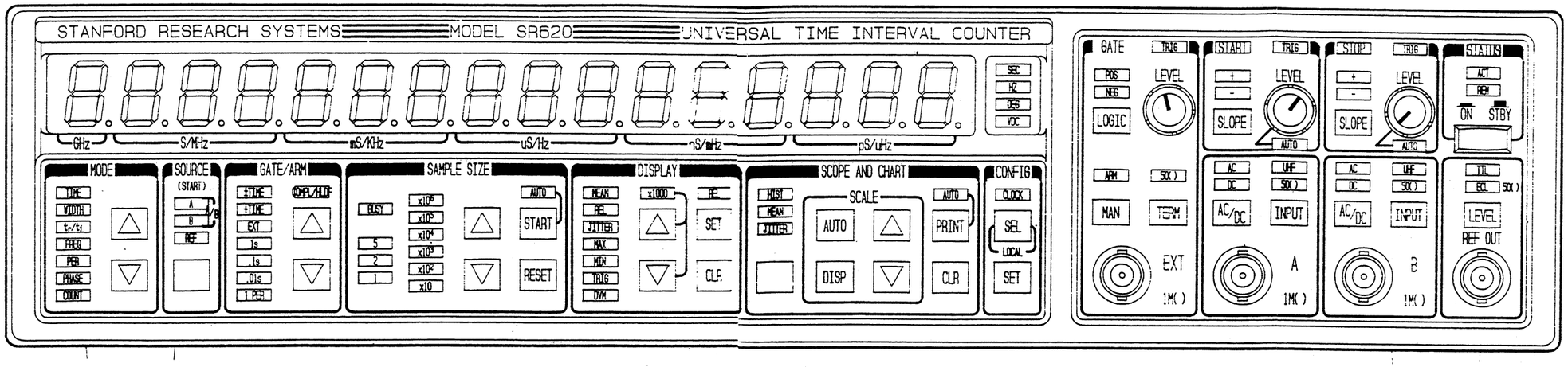
PRINTER PORT

Centronics printer port for hard copy of scope displays. Any Epson compatible graphics printer may be used. May also be used as an eight bit digital I/O port.

SR620 Universal Time Interval Counter Visual Index

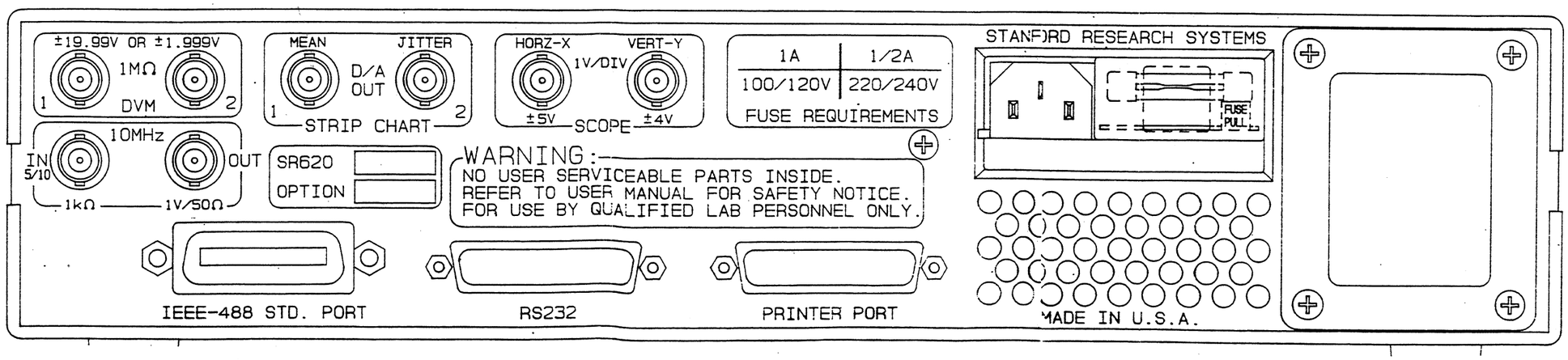
MODE

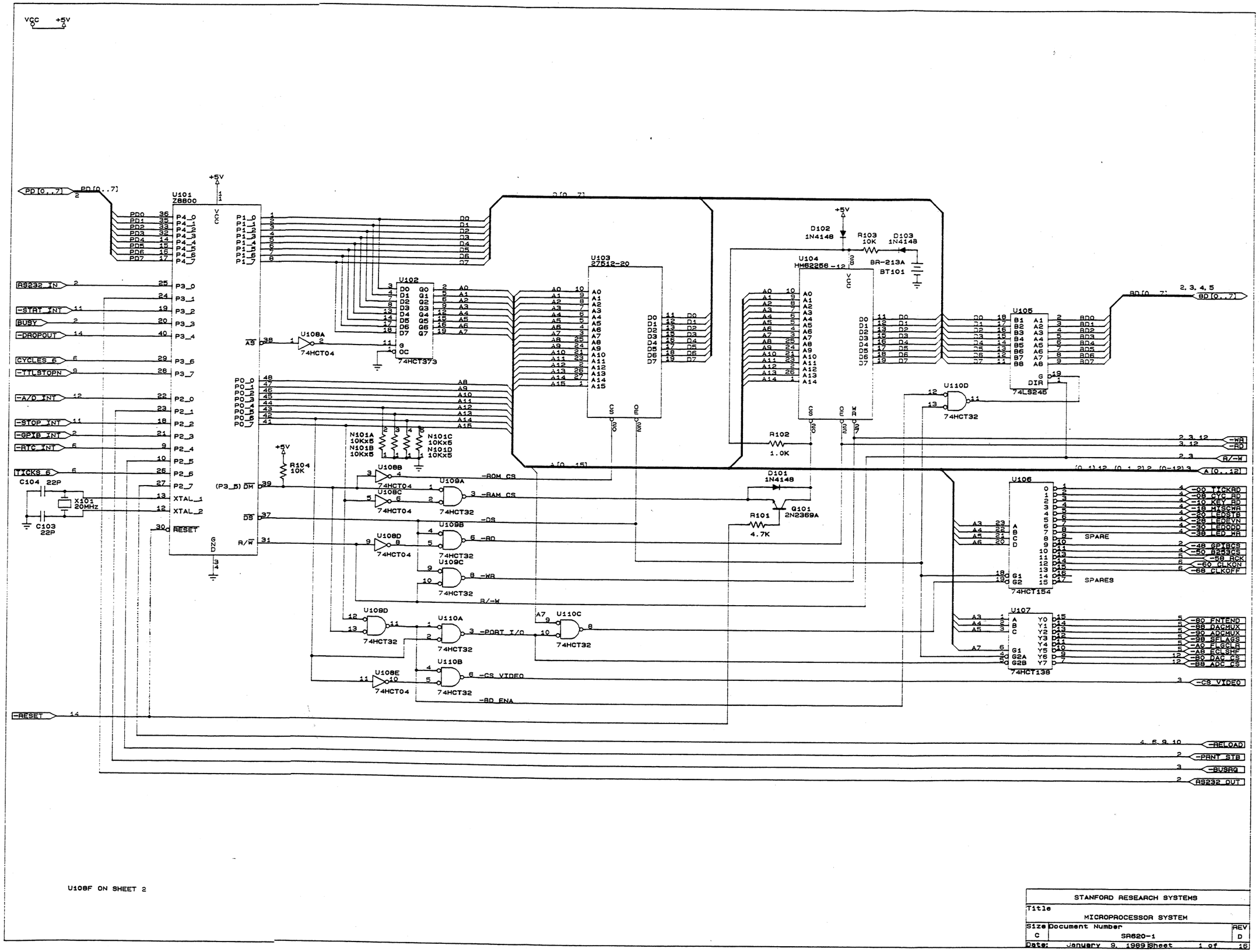
3
S9
MODE

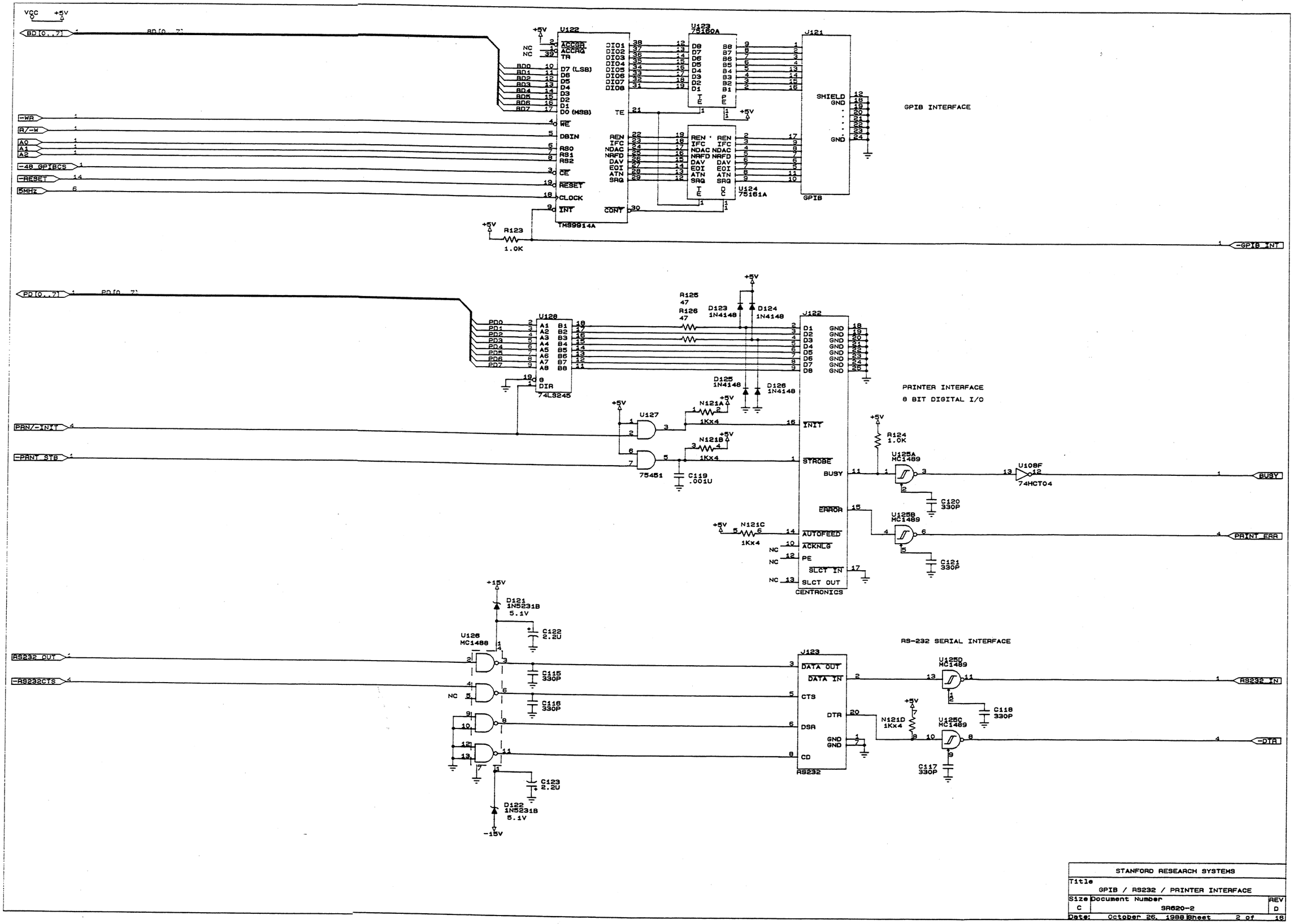


FRONT PANEL	SOURCE	GATE/ARM	SAMPLE SIZE	DISPLAY & REL	SCOPE & CHART	PRINT & PLOT	CONFIG	EXT	A & B INPUTS	REF OUT
Operation	3	11 - 16	3	5	5-8	6,18	17 - 22	9,10,19	9,10,19	10
Circuit Schematic	86,S9	87,S6,S9,S10		91,S16	82,S3	81,S2		86,S8,S9	86,S8	84,S6
Control Commands	SRCE	ARMM,COMP,GATE	SIZE,STRT, STOP,AUTM	DISP,DREL	GENA,DGPH, AUTS,GCLR	PLOT,PDEV, PLAD,PLPT,PCLR	SCAN,VOUT, DBEG,DSTP	LEVL,MTRG, ARMM,TERM	LEVL,TERM, TCPL,TSLP	RLVL

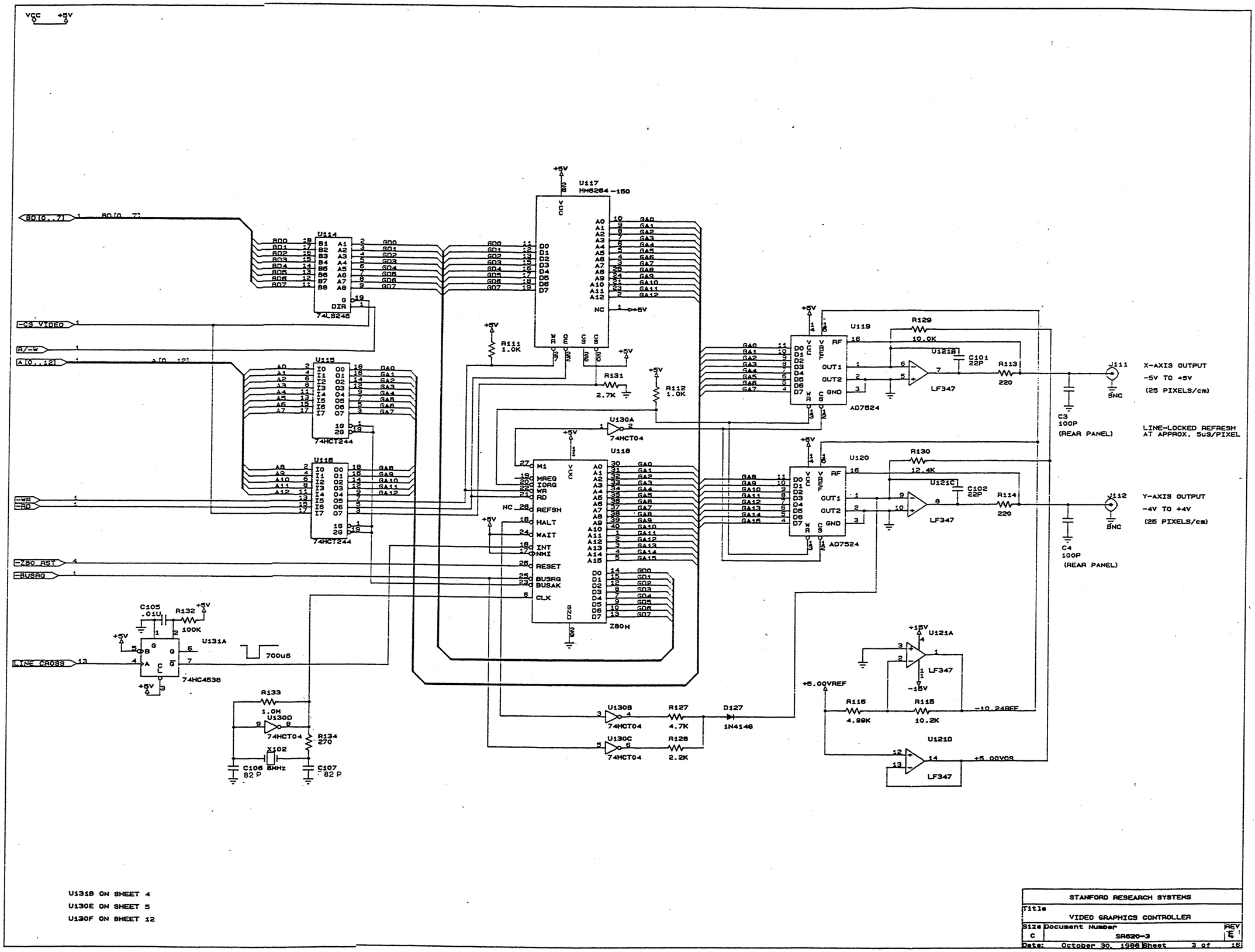
REAR PANEL	TIMEBASE	DVM's	DAC's	GPIB	RS232	POWER SUPPLY
Operation	10,18	10,18	7,19 - 22	17,29	17,29	iv
Circuit Schematic	85,S7	83,89,S12	83,90,S12	81,S2	82,S2	90,S13,S14
Control Commands	CLCK,CLKF	VOLT?,RNGE	VBEG,VSTP, VOUT,SCEN			

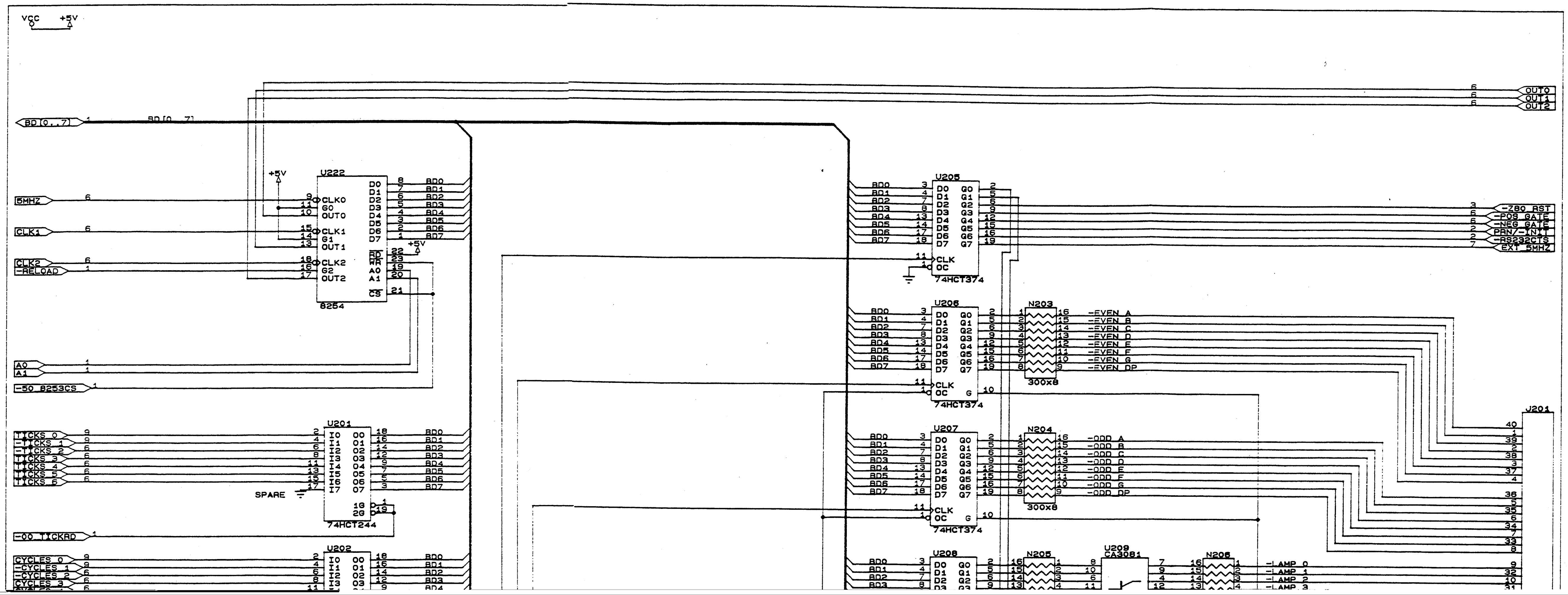



VCC +5V
U101 Z8800
PD[0..7]
RS232_IN
-STAT_INT
BUSY
-DROPOUT
CYCLES_6
-TTLSTOPN
-A/D_INT
-STOP_INT
-GPIB_INT
-RTC_INT
TICKS_6
C104 22P
X101 20MHz
C103 22P
RESET
U102 74HCT373
U103 27512-20
U104 HM62256-12
BR-213A
BT101
D102 1N4148
D103 1N4148
R103 10K
R102 1.0K
D101 1N4148
R101 4.7K
G101 2N2369A
U105 74LS245
U110D 74HCT32
U106 74HCT154
U107 74HCT138
SPARE
SPARES
N101A 10Kx5
N101B 10Kx5
N101C 10Kx5
N101D 10Kx5
R104 10K
U108A 74HCT04
U108B 74HCT04
U108C 74HCT04
U108D 74HCT04
U108E 74HCT04
U108F ON SHEET 2
U109A 74HCT32
U109B 74HCT32
U109C 74HCT32
U109D 74HCT32
U110A 74HCT32
U110B 74HCT32
U110C 74HCT32
-ROM_CS
-RAM_CS
-DS
-RD
-WR
R/-W
-PORT I/O
-CS_VIDEO
-BD_ENA
-RESET
-RELOAD
-PRNT_STB
-BUSRQ
RS232_OUT
-WR
-RD
R/-W
A[0..12]
BD[0..7]
-00 TICKRD
-08 CYC RD
-10 KEY RD
-18 HISCNT
-20 LEDSTB
-28 LEDEVN
-30 LEDOD
-38 LED_MR
-48 GPIBCS
-50 8253CS
-58 ROK
-60 CLKON
-68 CLKOFF
-80 FNTEND
-88 DACMUX
-90 ADCMUX
-98 SFLAGS
-A0 FLGCLR
-A8 ECLSHF
-B0 DAC CS
-B8 ADC CS
STANFORD RESEARCH SYSTEMS
Title
MICROPROCESSOR SYSTEM
Size C
Document Number SR620-1
REV D
Date: January 9, 1989 Sheet 1 of 16



STANFORD RESEARCH SYSTEMS		
Title: GPIB / RS232 / PRINTER INTERFACE		
Size: C	Document Number: SR620-2	REV: D
Date: October 26, 1988	Sheet 2 of 16	


VCC +5V
BD[0..7]
U114
74LS245
U115
74HCT244
U116
74HCT244
U117
HM6264-150
U118
Z80H
U119
AD7524
U120
AD7524
U121A
U121B
U121C
U121D
LF347
U130A
74HCT04
U130B
74HCT04
U130C
74HCT04
U130D
74HCT04
U131A
74HC4538
-CS VIDEO
R/-W
A[0..12]
-WR
-RD
-Z80 RST
-BUSRQ
LINE CROSS
700uS
R111 1.0K
R112 1.0K
R131 2.7K
R132 100K
R133 1.0M
R134 270
R127 4.7K
R128 2.2K
R129 10.0K
R130 12.4K
R113 220
R114 220
R115 10.2K
R116 4.99K
C105 .01U
C106 82 P
C107 82 P
C101 22P
C102 22P
C3 100P
C4 100P
X102 8MHz
D127 1N4148
J111
J112
BNC
X-AXIS OUTPUT
-5V TO +5V
(25 PIXELS/cm)
Y-AXIS OUTPUT
-4V TO +4V
(25 PIXELS/cm)
(REAR PANEL)
LINE-LOCKED REFRESH
AT APPROX. 5uS/PIXEL
+5.00VREF
-10.24REF
+5.00VOS
U131B ON SHEET 4
U130E ON SHEET 5
U130F ON SHEET 12
STANFORD RESEARCH SYSTEMS
Title
VIDEO GRAPHICS CONTROLLER
Size C
Document Number SR620-3
REV E
Date: October 30, 1988 Sheet 3 of 16


VCC
+5V
BD[0..7]
5MHZ
CLK1
CLK2
-RELOAD
U222
CLK0
G0
OUT0
CLK1
G1
OUT1
CLK2
G2
OUT2
D0
D1
D2
D3
D4
D5
D6
D7
RD
WR
A0
A1
CS
8254
A0
A1
-50 8253CS
TICKS 0
-TICKS 1
-TICKS 2
TICKS 3
TICKS 4
TICKS 5
TICKS 6
SPARE
U201
74HCT244
-00 TICKRD
CYCLES 0
-CYCLES 1
-CYCLES 2
CYCLES 3
U202
U205
74HCT374
U206
74HCT374
U207
74HCT374
U208
N203
300x8
N204
300x8
N205
N206
U209
CA3081
-EVEN A
-EVEN B
-EVEN C
-EVEN D
-EVEN E
-EVEN F
-EVEN G
-EVEN DP
-ODD A
-ODD B
-ODD C
-ODD D
-ODD E
-ODD F
-ODD G
-ODD DP
-LAMP 0
-LAMP 1
-LAMP 2
-LAMP 3
OUT0
OUT1
OUT2
-Z80 RST
-POS GATE
-NEG GATE
PRN/-INIT
-RS232CTS
EXT 5MHZ
J201

VCC +5V

BD[0..7]

Q210 2N3906
Q211 2N3906
Q212 2N3906

-A_50
-B_50
-EXT_50

U234 74HCT374
-A_DC
-B_DC

U239 MPQ3467
CMP1_A/-B
CMP2_B/-A
CMP3_E/-C

-.7V SOURCE
C213 2.2U

U235 74HCT374
ADC_MPX0
ADC_MPX1
ADC_MPX2
-ADC_S/H
-ADC_GAIN
ADC1
-ADC4
INT_GATEN

U236 74HCT374
DAC_MPX0
DAC_MPX1
DAC_MPX2
-DAC_INH
SEL_CMP3
-INT_CLK
INT/-EXT
SEL_-CMP3

-BAD_CLK
-OVLD_A
-OVLD_B
-OVLD_EXT

U233 74HCT244

-ARMED

U230A MC10125

U231A 74F74

U130E 74HCT04

N213A 4.7Kx3
C211 100P
N214A 10Kx3
-15V

-.7V

U237 74HC595
ECL STATUS LINES
FREQ_0
FREQ_1
FREQ_2
START_0
START_1
START_2
STOP_0
STOP_1
-5.2V

U238 74HC595
STOP_2
CNT/-PTN
-INT_ARM
-P_TYPE
-P/M_TYPE
PAR/HOFF
-FAST_PER
SPARE

U250 74HC595
CMP3_EN
CMP1_EN
CMP2_EN
-PRE_A_EN
-PRE_B_EN
TRIG1_POL
TRIG2_POL
SPARE

CMP_3_TTL

U231B 74F74

TRIG_2

U230C MC10125

U232A 74F74

TRIG_1

U230D MC10125

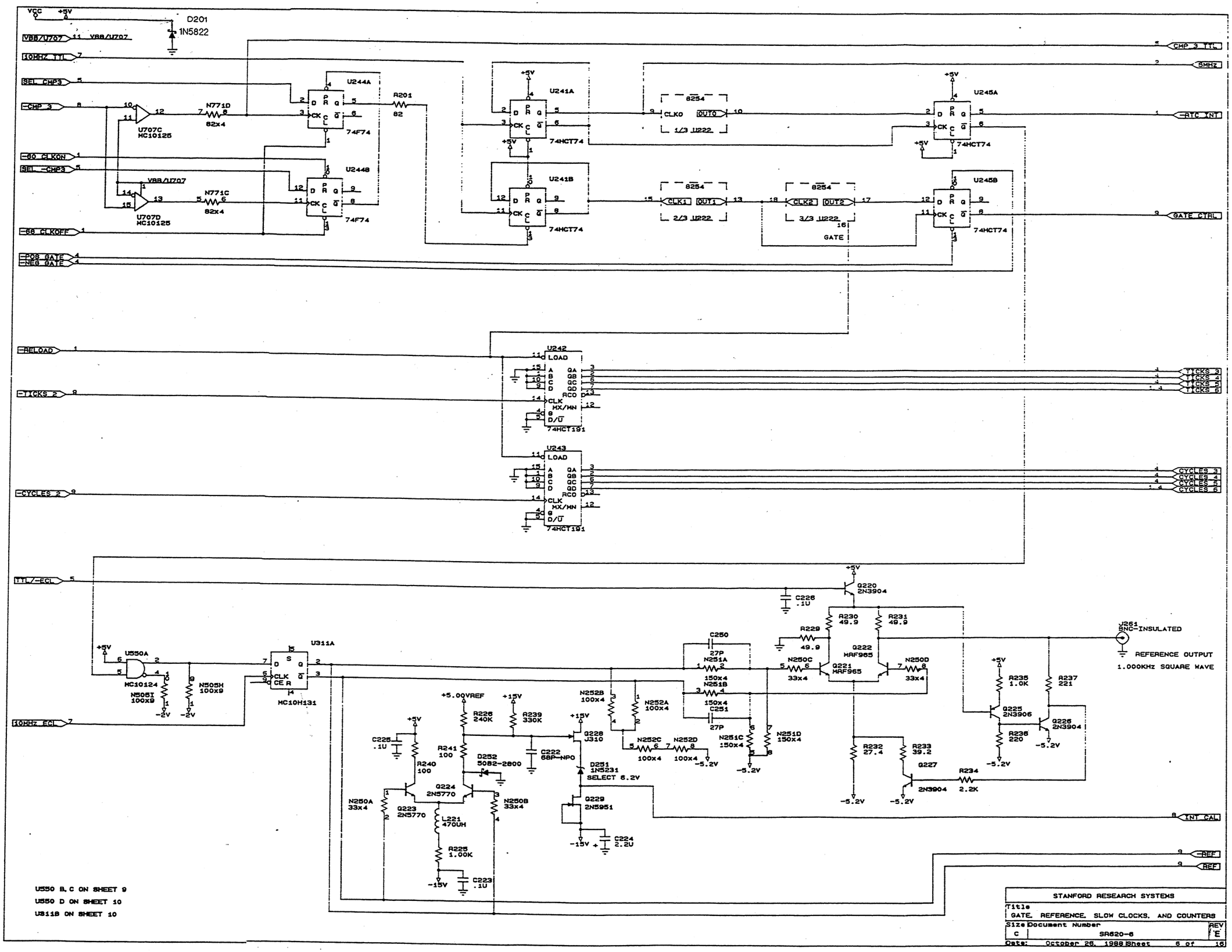
U232B 74F74

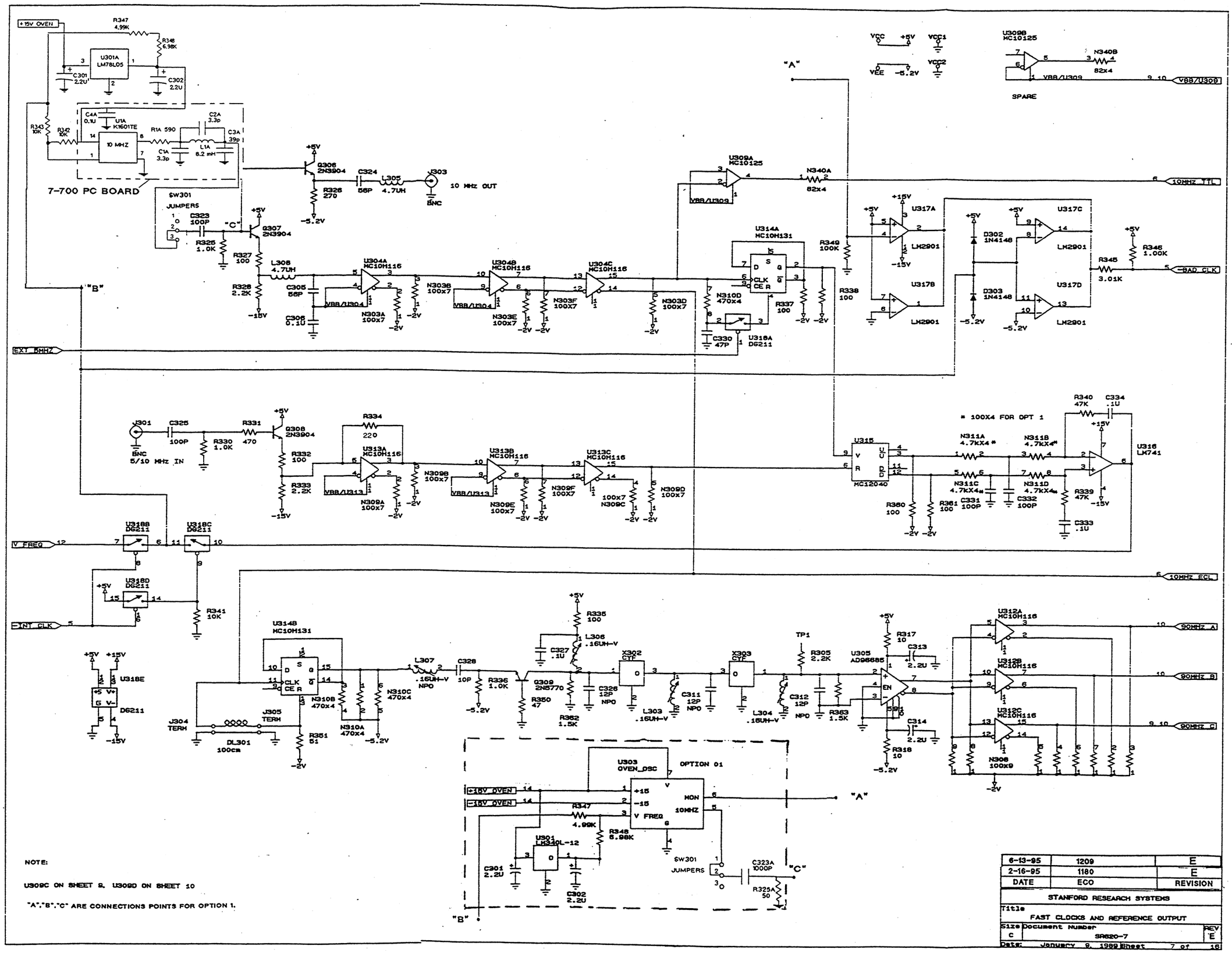
VBB/U230

-A0 FLGCLR
-B8 SFLAGS
-B0 FNTEND
-B0 ADCMUX
-B8 DACMUX
-A8 ECLSHF
-B8 RCK

VBB/U230

STANFORD RESEARCH SYSTEMS		
Title: ANALOG AND ECL I/O		
Size: C	Document Number: SR620-5	REV: D
Date: October 26, 1988	Sheet 5 of 16	


VCC +5V
D201
1N5822
VBB/U707
10MHZ TTL
SEL CMP3
-CMP 3
-90 CLKON
SEL -CMP3
-90 CLKOFF
-POS GATE
-NEG GATE
U244A
U244B
74F74
N771D
N771C
82x4
R201
82
U707C MC10125
U707D MC10125
U241A
U241B
74HCT74
8254
CLK0
OUT0
1/3 U222
CLK1
OUT1
2/3 U222
CLK2
OUT2
3/3 U222
GATE
U245A
U245B
CMP 3 TTL
5MHz
-ATC INT
GATE CTRL
-RELOAD
-TICKS 2
-CYCLES 2
U242
U243
LOAD
CLK
MX/MN
D/U
74HCT191
TTICKS 3
TTICKS 4
TTICKS 5
TTICKS 6
CYCLES 3
CYCLES 4
CYCLES 5
CYCLES 6
TTL/-ECL
10MHz ECL
U550A
MC10124
N505H 100x9
N505I 100x9
U311A
MC10H131
Q220 2N3904
C226 .1U
R229 49.9
R230 49.9
R231 49.9
Q222 MAF965
Q221 MAF965
N250C 33x4
N250D 33x4
C250 27P
N251A 150x4
N251B 150x4
C251 27P
N251C 150x4
N251D 150x4
J261 BNC-INSULATED
REFERENCE OUTPUT
1.000KHz SQUARE WAVE
R235 1.0K
R237 221
Q225 2N3906
Q226 2N3904
R236 220
R232 27.4
R233 39.2
Q227 2N3904
R234 2.2K
+5.00VREF
+15V
R226 240K
R239 330K
C225 .1U
R241 100
R240 100
D252 5082-2800
C222 68P-NPO
Q228 J310
D251 1N5231 SELECT 6.2V
Q224 2N5770
Q223 2N5770
Q229 2N5951
N250A 33x4
N250B 33x4
L221 470UH
R225 1.00K
C223 .1U
C224 2.2U
N252B 100x4
N252A 100x4
N252C 100x4
N252D 100x4
INT CAL
REF
U550 B,C ON SHEET 9
U550 D ON SHEET 10
U311B ON SHEET 10
STANFORD RESEARCH SYSTEMS
Title
GATE, REFERENCE, SLOW CLOCKS, AND COUNTERS
Size C
Document Number SR620-6
REV E
Date: October 26, 1988 Sheet 6 of 16



NOTE:

U309C ON SHEET 9, U309D ON SHEET 10

"A","B","C" ARE CONNECTIONS POINTS FOR OPTION 1.

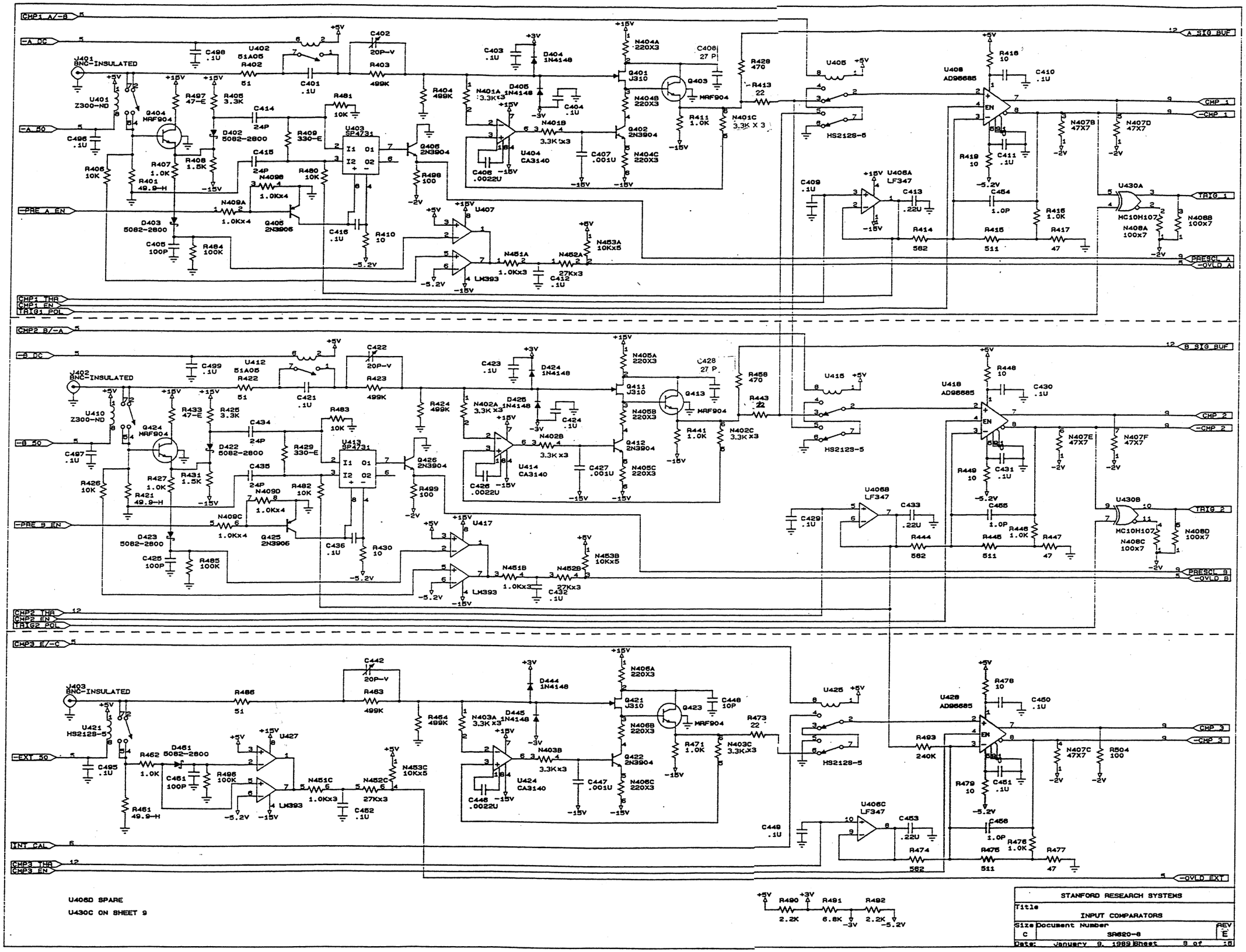
DATE	ECO	REVISION
6-13-95	1209	E
2-16-95	1180	E

STANFORD RESEARCH SYSTEMS

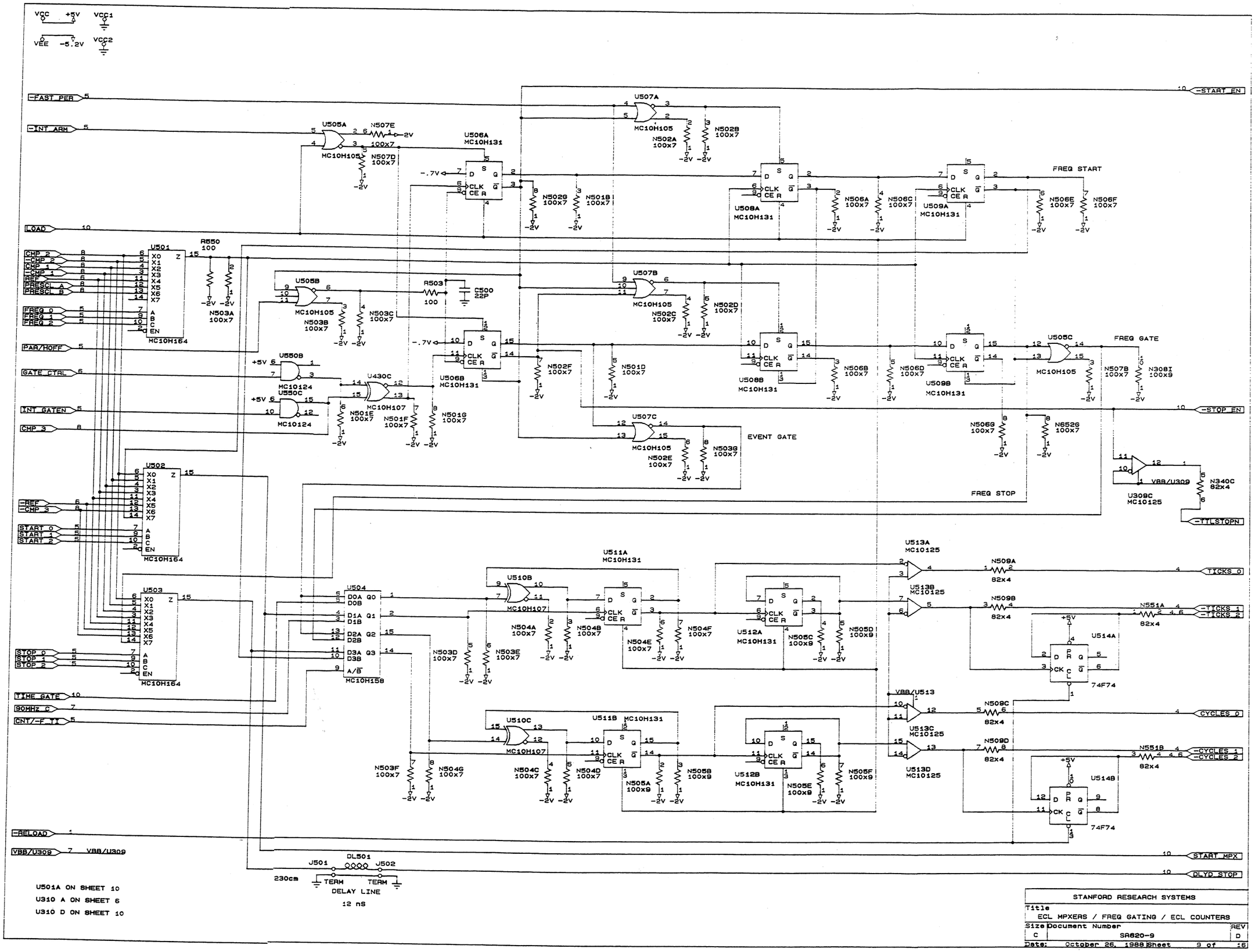
Title: FAST CLOCKS AND REFERENCE OUTPUT

Size: C | Document Number: SR620-7 | REV: E

Date: January 9, 1999 | Sheet 7 of 16



STANFORD RESEARCH SYSTEMS	
Title	INPUT COMPARATORS
Size C	Document Number SR620-8 REV E
Date: January 9, 1989	Sheet 8 of 16


VCC +5V VCC1
VEE -5.2V VCC2
-FAST PER
-INT ARM
LOAD
-START EN
-STOP EN
U507A
MC10H105
N502A 100x7
N502B 100x7
U505A
N507E 100x7
N507D 100x7
U506A MC10H131
N502G 100x7
N501B 100x7
U508A MC10H131
U509A MC10H131
N506A 100x7
N506C 100x7
N506E 100x7
N506F 100x7
FREQ START
R550 100
U501
MC10H164
CMP 2
/CMP 2
CMP 1
/CMP 1
REF
PRESCL A
PRESCL B
FREQ 0
FREQ 1
FREQ 2
N503A 100x7
U505B
MC10H105
N503B 100x7
N503C 100x7
R503 100
C500 22P
U507B
MC10H105
N502C 100x7
N502D 100x7
U506B MC10H131
N502F 100x7
N501D 100x7
U508B MC10H131
U509B MC10H131
N506B 100x7
N506D 100x7
U505C
MC10H105
N507B 100x7
N308I 100x9
FREQ GATE
PAR/HOFF
GATE CTRL
INT GATEN
CMP 3
U550B
U550C
MC10124
U430C
MC10H107
N501E 100x7
N501F 100x7
N501G 100x7
U507C
MC10H105
N502E 100x7
N503G 100x7
EVENT GATE
N506G 100x7
N6526 100x7
FREQ STOP
U308C MC10125
VBB/U309
N340C 82x4
-TTLSTOPN
U502
-REF
-CMP 3
START 0
START 1
START 2
U503
STOP 0
STOP 1
STOP 2
MC10H164
U504
MC10H158
U511A MC10H131
U510B
MC10H107
N504A 100x7
N504B 100x7
N503D 100x7
N503E 100x7
U512A MC10H131
N504E 100x7
N504F 100x7
N505C 100x9
N505D 100x9
U513A MC10125
U513B MC10125
N509A 82x4
N509B 82x4
N551A 82x4
-TICKS 1
-TICKS 2
TICKS 0
U514A
74F74
VBB/U513
N509C 82x4
N509D 82x4
N551B 82x4
-CYCLES 1
-CYCLES 2
CYCLES 0
U513C MC10125
U513D MC10125
U514B
74F74
U510C
MC10H107
U511B MC10H131
N503F 100x7
N504G 100x7
N504C 100x7
N504D 100x7
U512B MC10H131
N505A 100x9
N505B 100x9
N505E 100x9
N505F 100x9
TIME GATE
90MHz C
CNT/-F TI
-RELOAD
VBB/U309
START MPX
DLYD STOP
DL501
J501
U502
230cm
TERM
TERM
DELAY LINE
12 nS
U501A ON SHEET 10
U310 A ON SHEET 6
U310 D ON SHEET 10
STANFORD RESEARCH SYSTEMS
Title
ECL MPXERS / FREQ GATING / ECL COUNTERS
Size C
Document Number SR620-9
REV D
Date: October 26, 1988 Sheet 9 of 16

VCC +5V VCC2 VCC1
VEE -5.2V

90MHz_A
START_MPX
-START_EN
-P/M_TIME
PAR/HOFF
90MHz_C
-RELOAD
90MHz_B
DLYD_STOP
-P_TIME
-STOP_EN
VBB/U309

U605A MC10H131
U605B MC10H131
U602B MC10H105
U604A MC10H131
U604B MC10H131
U602A MC10H105
U612A MC10H131
U612B MC10H131
U610A MC10H131
U610B MC10H131
U611A MC10H113
U611B MC10H113
U611C MC10H113
U611D MC10H113
U510A MC10H107
U311B MC10H131
U602C MC10H105
U309D MC10125
U550D MC10124
U609A MC10H131
U609B MC10H131
U607C MC10H105
U608A MC10H131
U608B MC10H131
U607A MC10H105
U607B MC10H105

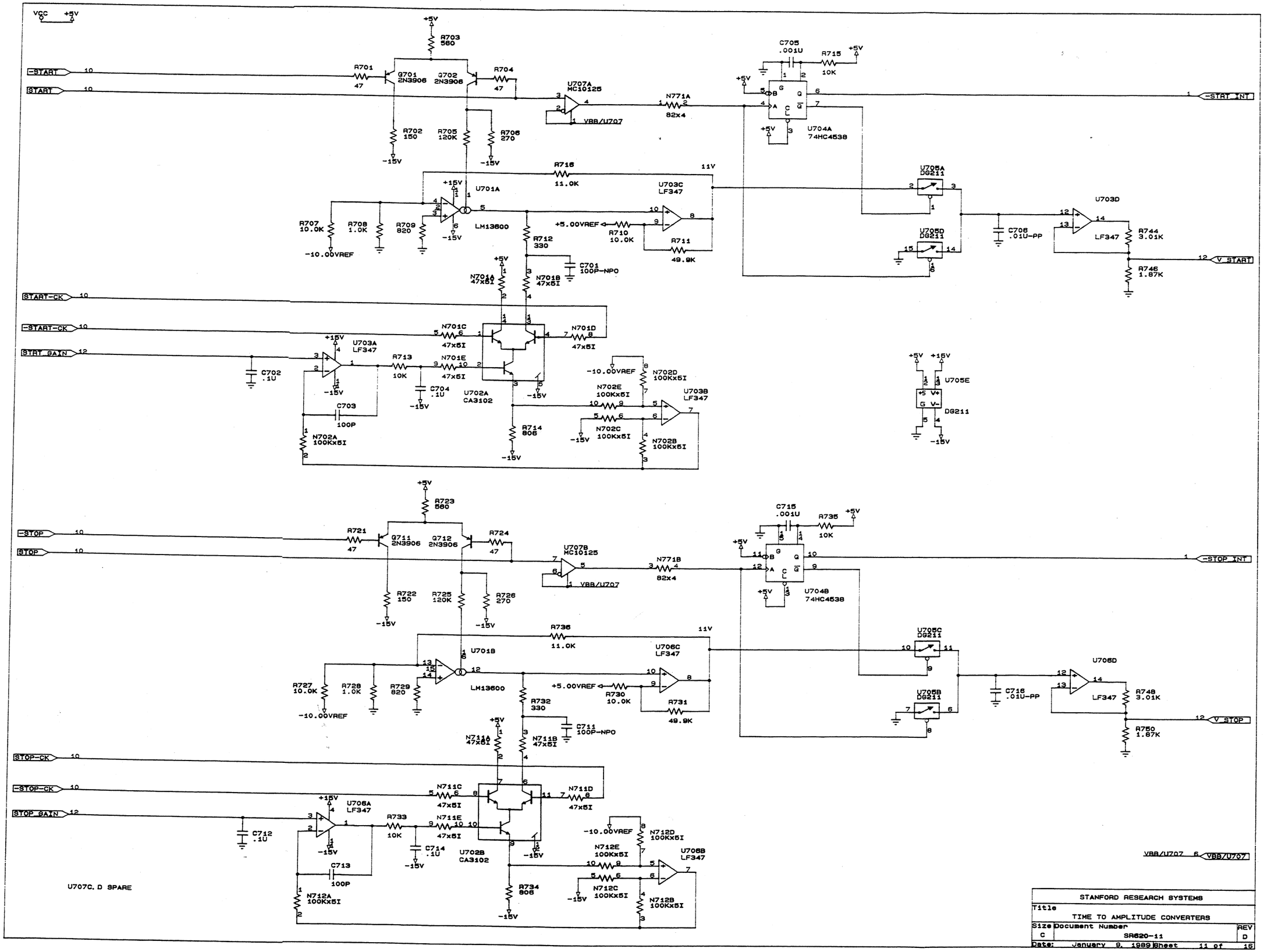
J601 DL601 J602 TERM TERM 5ns-DL 100cm
J603 DL602 J604 TERM TERM 5ns-DL 100cm
R501 51
R502 51
R600 330
C600 6.8P

N650C 100x7
N650D 100x7
N650F 100x7
N650E 100x7
N651D 470x5
N651C 470x5
N651A 470x5
N651B 470x5
N650B 100x7
N650A 100x7
N666A 100x7
N666B 100x7
N654A 100x7
N655A 100x7
N655B 100x7
N654D 100x7
N654B 100x7
N654C 100x7
N655C 100x7
N655E 100x7
N666F 100x7
N667F 100x7
N667C 100x7
N667G 100x7
N667A 100x7
N667B 100x7
N667E 100x7
N667D 100x7
N340D 82x4
N309G 100x7
N652C 100x7
N652D 100x7
N652F 100x7
N652E 100x7
N653A 470x5
N653B 470x5
N653D 470x5
N653C 470x5
N652B 100x7
N652A 100x7
N666C 100x7
N666E 100x7
N666D 100x7

-START-CK
START-CK
START
-START
-ARMED
TIME_GATE
-STOP-CK
STOP-CK
STOP
-STOP
NEG_TIME
LOAD
VBB/U309

U311A ON SHEET 6

STANFORD RESEARCH SYSTEMS		
Title: FAST TIME INTERVAL LOGIC		
Size: C	Document Number: SR620-10	REV: D
Date: October 26, 1988	Sheet 10 of 16	


VCC +5V
-START
START
R701 47
Q701 2N3906
Q702 2N3906
R704 47
R703 560
U707A MC10125
VBB/U707
N771A 82x4
C705 .001U
R715 10K
U704A 74HC4538
-STAT_INT
R702 150
R705 120K
R706 270
-15V
R716 11.0K
11V
U701A
LM13600
R707 10.0K
R708 1.0K
R709 820
-10.00VREF
R712 330
U703C LF347
+5.00VREF
R710 10.0K
R711 49.9K
C701 100P-NPO
U705A DG211
U705D DG211
C706 .01U-PP
U703D LF347
R744 3.01K
R746 1.87K
V_START
N701A 47x5I
N701B 47x5I
START-CK
-START-CK
START GAIN
N701C 47x5I
N701D 47x5I
U703A LF347
C702 .1U
R713 10K
N701E 47x5I
C704 .1U
U702A CA3102
C703 100P
N702A 100Kx5I
R714 806
N702D 100Kx5I
N702E 100Kx5I
N702C 100Kx5I
N702B 100Kx5I
U703B LF347
U705E DG211
R723 560
-STOP
STOP
R721 47
Q711 2N3906
Q712 2N3906
R724 47
U707B MC10125
N771B 82x4
C715 .001U
R735 10K
U704B 74HC4538
-STOP_INT
R722 150
R725 120K
R726 270
R736 11.0K
11V
U701B
LM13600
R727 10.0K
R728 1.0K
R729 820
-10.00VREF
R732 330
U706C LF347
+5.00VREF
R730 10.0K
R731 49.9K
C711 100P-NPO
U705C DG211
U705B DG211
C716 .01U-PP
U706D LF347
R748 3.01K
R750 1.87K
V_STOP
N711A 47x5I
N711B 47x5I
STOP-CK
-STOP-CK
STOP GAIN
N711C 47x5I
N711D 47x5I
U706A LF347
C712 .1U
R733 10K
N711E 47x5I
C714 .1U
U702B CA3102
C713 100P
N712A 100Kx5I
R734 806
N712D 100Kx5I
N712E 100Kx5I
N712C 100Kx5I
N712B 100Kx5I
U706B LF347
U707C, D SPARE
VBB/U707
STANFORD RESEARCH SYSTEMS
TIME TO AMPLITUDE CONVERTERS
Size C
Document Number SR620-11
REV D
Date: January 9, 1989
Sheet 11 of 15

REAR PANEL DVM INPUTS

FRONT PANEL LEVEL ADJ

A AUTO LEVEL

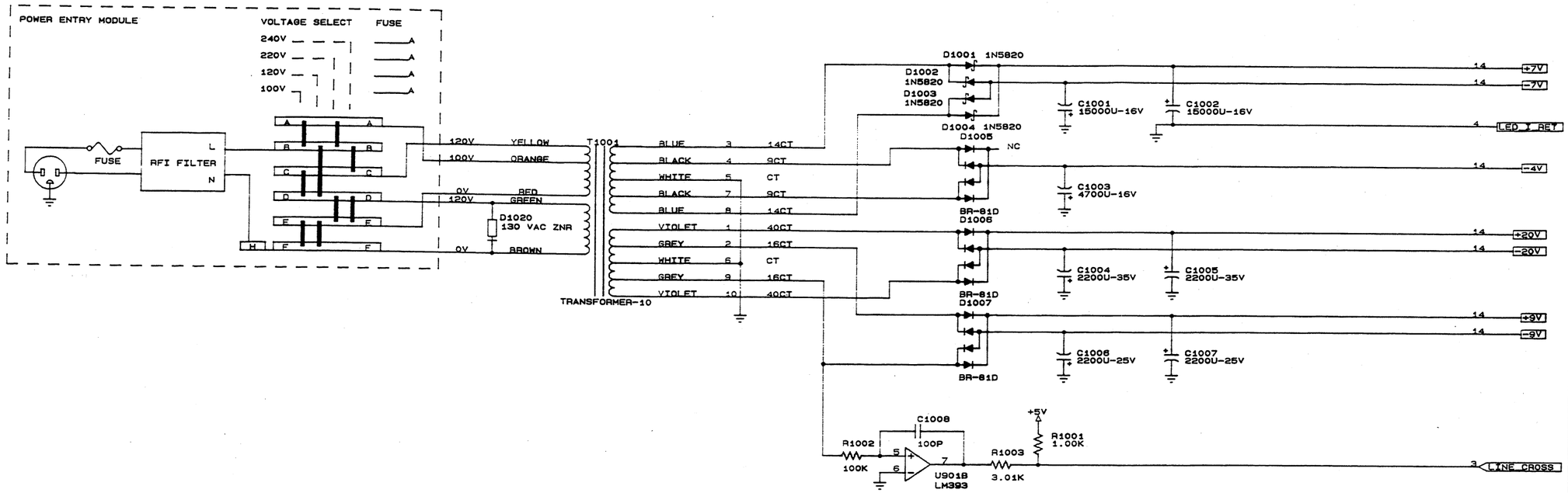
B AUTO LEVEL

CHART OUTPUTS (+/-10.24V, 5mV RES)

* INSTALL TO CHANGE FULL SCALE RANGE PER OPTIONAL OSCILLATOR

*C1 AND C2 MOUNT TO BNC'S

STANFORD RESEARCH SYSTEMS		
Title: A/D, D/A, AND THRESHOLDS		
Size: C	Document Number: SR620-12	REV: D
Date: January 8, 1989	Sheet 12 of 16	



STANFORD RESEARCH SYSTEMS		
Title: UNREGULATED POWER SUPPLIES		
Size: C	Document Number: SR620-13	REV: D
Date: November 10, 1988	Sheet 13 of 16	

+5.0 VDC REGULATOR

-5.2 VDC REGULATOR

-2.0 VDC REGULATOR

U902B SPARE

U912B ON SHEET 12

6-26-91	1013	E
2-16-95	1180	E
DATE	ECO	REVISION

STANFORD RESEARCH SYSTEMS

Title: POWER SUPPLY REGULATORS

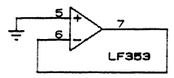
Size: C | Document Number: SR620-14 | REV: E

Date: October 27, 1988 Sheet 14 of 16

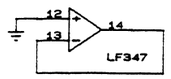
VCC2

VBB/U230 5 VBB/U230

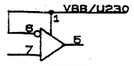
U902B



U406D



VBB/U230



U2308
MC10125

+5V
C950 .1U C951 .1U C952 .1U C953 .1U C954 .1U C955 .1U C956 .1U C957 .1U C958 .1U C959 .1U C1010 .1U C1011 .1U C1012 .1U C1013 .1U C1014 .1U C1015 .1U C1016 .1U

-5.2V
C960 .1U C961 .1U C962 .1U C963 .1U C964 .1U C965 .1U C966 .1U C967 .1U C968 .1U C969 .1U C1022 .1U C1023 .1U C1024 .1U C1025 .1U

-2V
C970 .1U C971 .1U C972 .1U C973 .1U C974 .1U C975 .1U C976 .1U C977 .1U

-15V
C980 .1U C981 .1U C982 .1U C983 .1U C984 .1U C985 .1U C986 .1U C987 .1U C988 .1U

+15V
C990 .1U C991 .1U C992 .1U C993 .1U C994 .1U C998 .1U C999 .1U C1017 .1U C1018 .1U C1019 .1U C1020 .1U C1021 .1U

GND

PAD

STANFORD RESEARCH SYSTEMS		
Title: SPARES AND DECOUPLING CAPS		
Size: C	Document Number: SR620-15	REV: D
Date: October 31, 1988	Sheet 15 of 16	

STB0 STB1 STB2 STB3 STB4 STB5 STB6 STB7

U1 U2 U3 U4 U5 U6 U7 U8 U9 U10 U11 U12 U13 U14 U15 U16
HDSP-H101

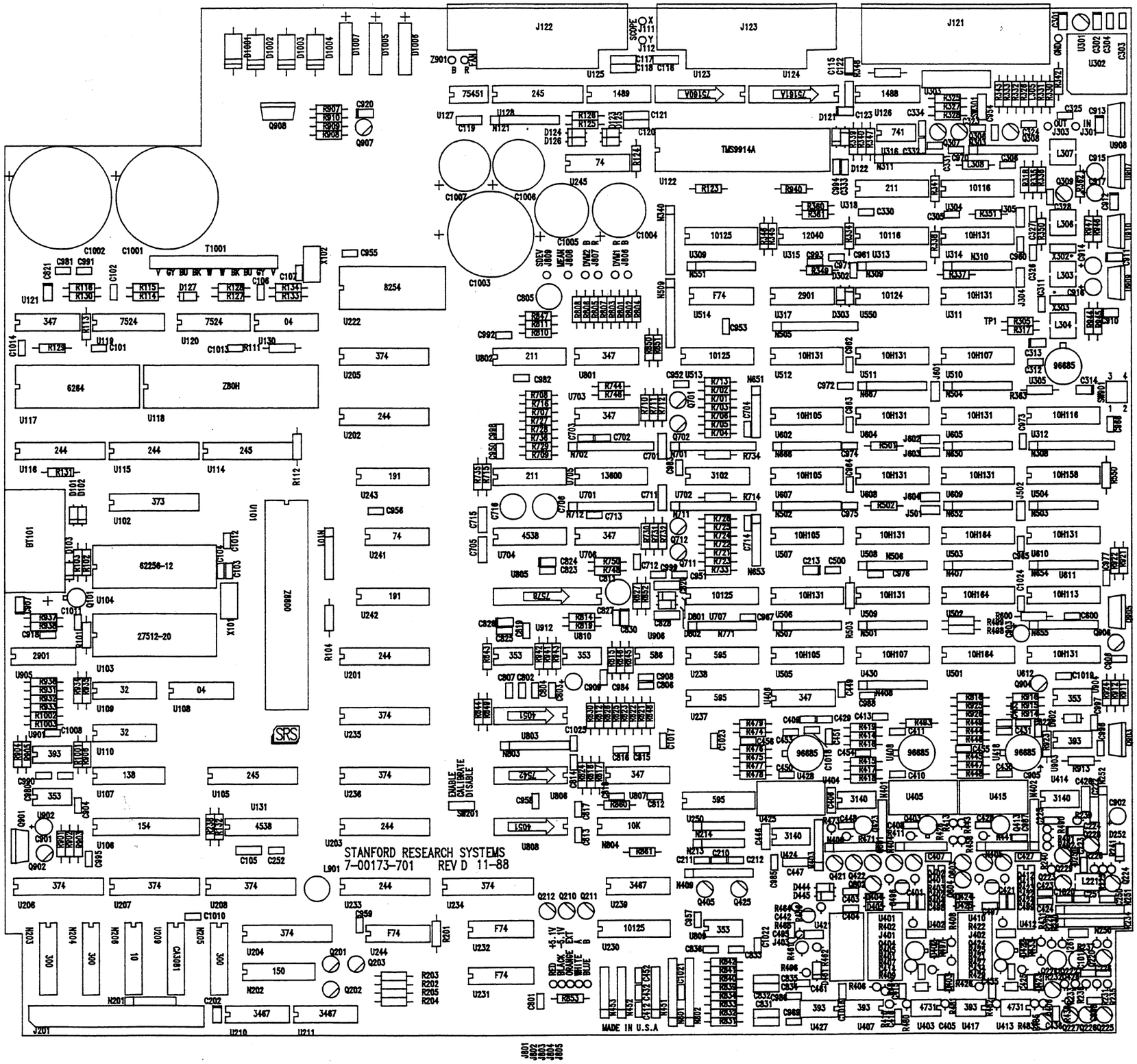
J1
TIC FP HEADER

D1 LED	TIME	D11 LED	STATUS	D21 LED	COMPL	D31 LED	REL	D41 LED	EXT TRIG	D51 LED	A TRIG	D61 LED	CLK ERR	D71 LED	SEC
D2 LED	A	D12 LED	ACT	D22 LED	+/-TIME			D42 LED	START ERR	D52 LED	STOP ERR	D62 LED	POS	D72 LED	Hz
D3 LED	WIDTH	D13 LED	REM	D23 LED	+TIME	D33 LED	B UHF	D43 LED	A +	D53 LED	B TRIG	D63 LED	NEG	D73 LED	DEG
D4 LED	B	D14 LED	BUSY	D24 LED	EXT	D34 LED	B AUTOLEV	D44 LED	A -	D54 LED	B +	D64 LED	AUTO S	D74 LED	VDC
D5 LED	Tr/Tf	D15 LED	TTL	D25 LED	A AUTOLEV	D35 LED	B AC	D45 LED	EXT 50	D55 LED	B -	D65 LED	ARM	D75 LED	HIST
D6 LED	REF	D16 LED	ECL	D26 LED	1 S	D36 LED	B 50	D46 LED	x10**6			D66 LED	AUTO P	D76 LED	MEAN S
D7 LED	FREQ	D17 LED	PER	D27 LED	A AC	D37 LED	.1 S	D47 LED	x10**5	D89 LED	x1000	D67 LED	MEAN D	D77 LED	SDEV S
D8 LED	5	D18 LED	PHASE	D28 LED	A DC	D38 LED	.01 S	D48 LED	x10**4	D58 LED	x10**3	D68 LED	REL	D78 LED	MIN
D9 LED	2	D19 LED	COUNT	D29 LED	A UHF	D39 LED	1 PER			D59 LED	x10**2	D69 LED	SDEV D	D79 LED	TRIG D
D81 LED	1			D83 LED	A 50	D84 LED	B DC			D86 LED	x10	D87 LED	MAX	D88 LED	DVM

D10 1N4148	SW1 KEY MODE UP	D20 1N4148	SW5 KEY GATE/ARM UP	D30 1N4148	SW9 KEY START	D40 1N4148	SW13 KEY SET REL	D50 1N4148	SW17 KEY SCALE UP	D60 1N4148	SW21 KEY COM SEL	D70 1N4148	SW25 KEY LOGIC	D80 1N4148	SW29 KEY STOP SLOPE
	SW2 KEY MODE DN		SW6 KEY SAMP SIZE UP		SW10 KEY DISPLAY UP		SW14 KEY AUTO SCALE		SW18 KEY PRINT		SW22 KEY SCOPE CLEAR		SW26 KEY START SLOPE		SW30 KEY STOP INPUT
	SW3 KEY SOURCE		SW7 KEY GATE/ARM DN		SW11 KEY RESET		SW15 KEY CLEAR REL		SW19 KEY SCALE DISP		SW23 KEY COM SET		SW27 KEY START AC/DC		SW31 KEY STOP AC/DC
	SW4 KEY LEVEL		SW8 KEY SAMP SIZE DN		SW12 KEY DISPLAY DN		SW16 KEY SCOPE SELECT		SW20 KEY SCALE DN		SW24 KEY MAN		SW28 KEY TERM		SW32 KEY START INPUT

J1 pin / signal:
40 Fa, 1 Fb, 39 Fc, 2 Fd, 38 Fe, 3 Ff, 37 Fg, 4 Fdp
36 Da, 5 Db, 35 Dc, 6 Dd, 34 De, 7 Df, 33 Dg, 8 Ddp
9 I0, 32 I1, 10 I2, 31 I3, 11 I4, 30 I5, 12 I6, 29 I7, 13 I8, 28 I9
24 STB0, 17 STB1, 23 STB2, 18 STB3, 22 STB4, 19 STB5, 21 STB6, 20 STB7
27 KBRD 0, 14 KBRD 1, 26 KBRD 2, 15 KBRD 3
16, 25

STANFORD RESEARCH SYSTEMS			
Title	U.T.I.C. FRONT PANEL PCB		
Size C	Document Number SR620-16		REV C
Date: July 22, 1988	Sheet 16 of 16		


STANFORD RESEARCH SYSTEMS
7-00173-701 REV D 11-88
MADE IN U.S.A
SRS